

Name: _____ Date: _____

1. The longest part of a neuron is most likely to be the:
A) axon.
B) cell body.
C) dendrite.
D) synapse.

2. The part of the brainstem that controls heartbeat and breathing is called the:
A) cerebellum.
B) medulla.
C) reticular formation.
D) thalamus.

3. Someone who is being kept alive with life-support machines that control heartbeat and breathing may have damage to which part of the brain?
A) amygdala
B) cerebral cortex
C) medulla
D) hippocampus

4. Which brain structure relays information from the eyes to the visual cortex?
A) amygdala
B) cerebellum
C) hippocampus
D) thalamus

5. After Greg's serious motorcycle accident, doctors detected damage to his cerebellum. Greg is most likely to have difficulty:
A) experiencing intense emotions.
B) playing his guitar.
C) reading a book.
D) understanding what others are saying.

6. Which lobe of the cerebral cortex is most responsible for advanced critical thinking, such as judgment and planning tasks?
- A) parietal
 - B) temporal
 - C) frontal
 - D) occipital
7. Which of the following is the most correct list of the parts of the cerebral cortex?
- A) longitudinal fissure, brainstem, cranial nerves, limbic system
 - B) frontal, parietal, temporal occipital lobes
 - C) left hemisphere, right hemisphere, longitudinal fissure, corpus callosum
 - D) thalamus, hippocampus, hypothalamus, amygdala
8. Auditory stimulation is first processed in the _____ lobes.
- A) frontal
 - B) occipital
 - C) parietal
 - D) temporal
9. A brain surgeon who wanted to make sure that neurons in the left hemisphere of the cerebral cortex could not communicate with neurons in the right hemisphere would have to sever which of the following brain structures?
- A) cerebellum
 - B) cerebral cortex
 - C) amygdala
 - D) corpus callosum
10. The eyes communicate most directly with which lobe of the cerebral cortex?
- A) parietal
 - B) temporal
 - C) frontal
 - D) occipital
11. Which of the following brain areas are found only in the left hemisphere in most people?
- A) hypothalamus and hippocampus
 - B) corpus callosum and corpus callosum
 - C) axon terminals and myelin sheath
 - D) Broca's area and Wernicke's area

12. The major limitation of the case study method of studying the brain is that:
- A) they provide only general and less detailed information about brain function.
 - B) case studies are difficult to perform without expensive brain scanning equipment.
 - C) studies of cases are expensive because so many participants are required.
 - D) it is difficult to generalize the results to other cases.
13. Which of the following statements best describes how researchers use case studies of accidental brain injuries (like the Phineas Gage case) to study the brain?
- A) Researchers use brain surgeries such as lobotomies to temporarily disable certain parts of the brain and observe the effects.
 - B) Researchers scan patients' brains using MRI and CAT scans and closely examine the tissues of the brain.
 - C) Researchers inject a radioactive form of glucose into patients' bloodstreams and use a PET scan to examine brain activity.
 - D) Researchers determine which part of the brain was injured and observe the patient's changes in behavior.
14. Which brain scan would a doctor recommend for a patient who needs a brain scan that shows internal structure of the brain, but who cannot be exposed to x-rays because of a cancer risk?
- A) PET
 - B) CAT
 - C) MRI
 - D) EEG
15. Which brain scan would a researcher use to discover which parts of the brain are active during a schizophrenic's visual hallucinations?
- A) PET
 - B) CAT
 - C) MRI
 - D) EKG
16. What structure in the body receives neurotransmitters, and may send neurotransmitters across a synapse?
- A) central nervous system
 - B) endocrine glands
 - C) neuron
 - D) brain

17. Action potentials are:
- A) the potential energy a neuron holds.
 - B) neural impulses produced by neurons.
 - C) how long it takes for a neuron to reset itself.
 - D) the amount of neurotransmitters a neuron can release.
18. Which of the following is the best metaphor for a firing neuron?
- A) a battery slowly draining a charge
 - B) two people communicating effectively
 - C) information traveling along the Internet
 - D) a toilet flushing
19. Neurotransmitters are:
- A) specialized types of neurons.
 - B) structures within neurons that help neurons fire.
 - C) chemicals that travel between neurons.
 - D) electrical impulses sent between neurons.
20. The chemical messengers released into the spatial junctions between neurons are called:
- A) genes.
 - B) hormones.
 - C) neurotransmitters.
 - D) synapses.
21. Curare is a paralyzing poison that functions as an:
- A) ACh agonist.
 - B) ACh antagonist.
 - C) dopamine agonist.
 - D) dopamine antagonist.
22. Which of the following is the best metaphor for the effects of excitatory and inhibitory neurotransmitters?
- A) a volume knob on a stereo
 - B) up and down buttons on a television remote control
 - C) Internet Web pages
 - D) red and green lights on a stoplight

23. Which of the following neurotransmitters is most likely to affect whether you get a good night's rest and whether you wake up in a good mood?
- A) dopamine
 - B) acetylcholine
 - C) serotonin
 - D) agonist
24. A young girl starts to have severe trouble paying attention in school, and her teachers notice that she seems either extremely, overwhelmingly happy, or she is crying uncontrollably, for no reason. Which of the following neurotransmitters is most likely to be involved in this problem?
- A) acetylcholine
 - B) dopamine
 - C) serotonin
 - D) antagonist
25. Waving to a friend involves the _____ nervous system. Jumping after hearing a loud noise involves the _____ nervous system.
- A) sympathetic; parasympathetic
 - B) central; peripheral
 - C) somatic; autonomic
 - D) neural, non-neural
26. Chemical messengers produced by endocrine glands are called:
- A) agonists.
 - B) enzymes.
 - C) hormones.
 - D) neurotransmitters.
27. Which of the following statements best describes the endocrine system?
- A) a system that transports important hormones produced by several glands
 - B) the set of nerves that slow the body down after a fight-or-flight response
 - C) the system that connects the brain with the spinal cord and the rest of the peripheral nervous system
 - D) the motor nerves connected to our sensory apparatus

28. Which of the following glands and hormones is responsible for the physical changes that happen to women during puberty?
- A) thyroid; thyroxin
 - B) adrenals; adrenalin
 - C) ovaries; estrogen
 - D) pituitary; neurotransmitters
29. Which of the following hormones is most likely to be released during an exciting roller coaster ride?
- A) epinephrine
 - B) thyroxin
 - C) insulin
 - D) estrogen
30. You are a neurosurgeon and one of your patients tells you he is having difficulties understanding what others say to him and moving his right arm and leg. His hearing also seems to be deteriorating. You order a brain scan and analyze the results. Explain what brain scan you order (you can only choose one) and why, and what areas of the brain you think are most likely being affected.
31. Which group of psychologists researched how we organize basic parts of perceptual experiences into the whole perception?
- A) behavioristic psychologists
 - B) structuralist psychologists
 - C) Gestalt psychologists
 - D) perceptual psychologists
32. Which of the following statements would the Gestalt psychologists most likely agree with?
- A) The whole is greater than the sum of its parts.
 - B) Humans are conditioned into behaviors by rewards and punishments.
 - C) Brain chemistry and genetic predispositions control thinking and behavior.
 - D) Cultural norms are responsible for perceptual events.

33. If you briefly saw a picture of your mother's face but part of the picture was missing, your brain might fill in the missing piece of the visual image because of which Gestalt principle?
- A) closure
 - B) color constancy
 - C) proximity
 - D) similarity
34. If two objects make the same size image on the retina, we will perceive the object that appears to be closer as _____ the object that appears to be more distant.
- A) larger than
 - B) smaller than
 - C) taller
 - D) the same size as
35. The monocular depth cue in which an object blocking another object is perceived as closer is:
- A) interposition.
 - B) linear perspective.
 - C) relative clarity.
 - D) relative height.
36. We know that an elephant in the distance is actually larger than an insect right in front of our nose because of which monocular depth cue?
- A) retinal disparity
 - B) convergence
 - C) texture gradient
 - D) relative size
37. Perceiving that the size, shape, and lightness of an object as unchanging even as the image of the object on the retina changes is called:
- A) perceptual constancy.
 - B) sensation constancy.
 - C) binocular cues.
 - D) monocular cues.

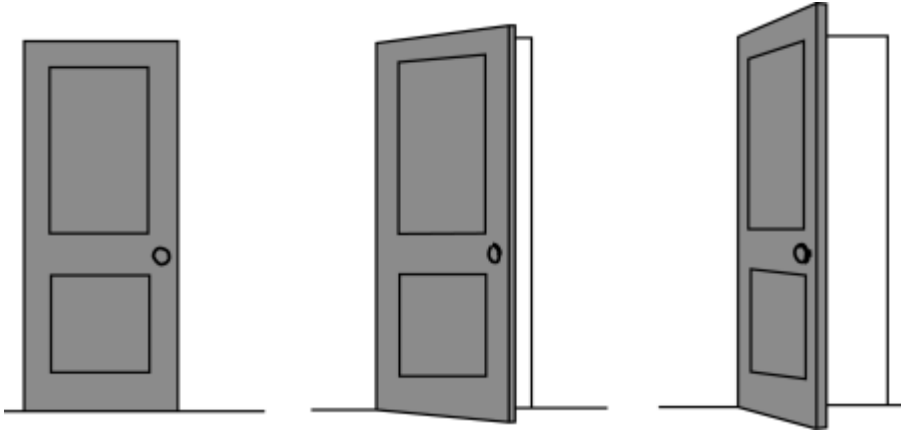
38. Because of size constancy, if a person sees a car drive away down the road, what will happen to the person's perception of the size of the car?
- A) The person will perceive the car as shrinking in size as it drives farther away.
 - B) The person will perceive the car as the same size, even though it is farther away.
 - C) The person will perceive the car as becoming slightly larger as it drives away.
 - D) The person will perceive the car as becoming darker in shade but slightly smaller.
39. Which of the following is the best definition of a perceptual set?
- A) depth cues provided by the different images produced by each eye, such as retinal disparity
 - B) a mental predisposition to perceive something one way and not another
 - C) the brain's ability to perceive constant size, shape, and lightness even when viewing conditions change
 - D) how our brain organizes sensations
40. Which of the following is the best summary of the relationship between sensations and perceptual sets?
- A) Perceptual sets are used to create sensations.
 - B) Groups of perceptions are organized into sensation categories, creating perceptual sets.
 - C) We use perceptual sets to organize sensations into perceptions.
 - D) Sensations are information from the energy senses, and perceptual sets are information from chemical senses.
41. Which of the following situations is a perceptual set most likely to influence?
- A) copying a definition out of a dictionary
 - B) measuring your height and weight
 - C) watching a dramatic movie
 - D) counting out change

42. A friend calls you and says, “I found this Web site that plays songs backward and I heard these totally weird messages.” Which of the following is an accurate explanation for these “messages” your friend heard?
- A) Artists put backward messages in songs that can be perceived from the sensations due to monocular cues.
 - B) Playing a song backward activates powerful auditory schemas and we may be able to hear messages placed in songs that we cannot hear when the song is played normally.
 - C) Hearing a song played backward might violate our Gestalt rules for hearing music, causing use to perceive messages.
 - D) Your friend most likely listened to the backward songs using a specific perceptual set, causing your friend to hear a message.
43. The accompanying visual illusion is called:



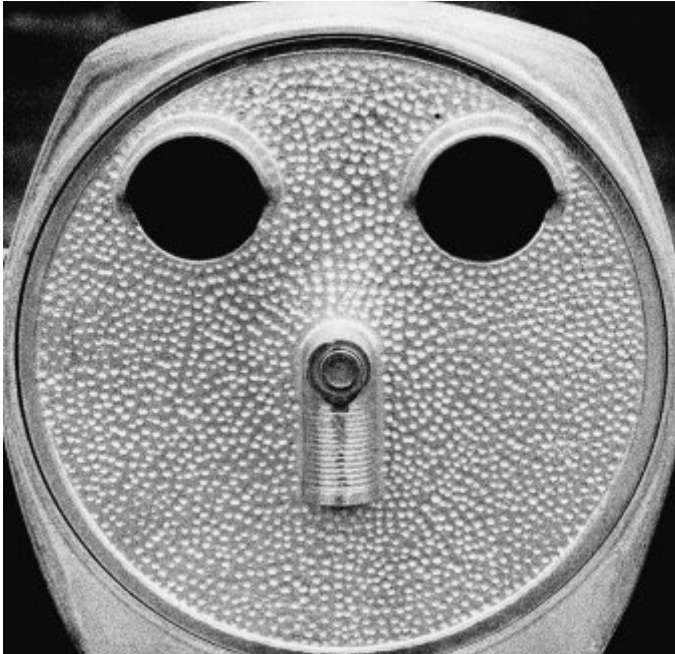
- A) the Müller-Lyer illusion.
- B) the Ponzo illusion.
- C) the Visual Cliff illusion.
- D) the Gestalt-perspective illusion.

44. We perceive the door as a rectangle in each of the accompanying images because of which perceptual principle?



- A) size constancy
- B) shape constancy
- C) lightness constancy
- D) sensation constancy

45. Most people perceive a face in the image here. Which of the following statements best explains why?



- A) The figure-ground relationships in the images cause the visual cortex of the brain to see eyes and noses in the images.
- B) Our schema for human faces is very strong, leading us to often organize visual images into faces.
- C) Binocular cues like images that resemble two eyes lead us to monocular cues, such as face perceptions.
- D) The Gestalt principle of proximity causes our perceptual sets to change for each image.

Answer Key - Untitled Exam-26

1. A
2. B
3. C
4. D
5. B
6. C
7. B
8. D
9. D
10. D
11. D
12. D
13. D
14. C
15. A
16. C
17. B
18. D
19. C
20. C
21. B
22. D
23. C
24. B
25. B
26. C
27. A
28. D
29. A
30. The student response should include an accurate description and justification of the scan ordered. CAT and MRI scans might be ordered to see if there is structural damage to the brain. fMRI, EEG, or PET scans might be ordered to assess something about brain function. The most likely areas of the brain are the left temporal lobe and motor cortex.
31. C
32. A
33. A
34. B
35. A
36. D
37. A
38. B

- 39. A
- 40. C
- 41. C
- 42. D
- 43. B
- 44. B
- 45. B